

# **SITE INVESTIGATION FOR PROPOSED STRUCTURAL RETROFIT OF EIGHT FLOOR SLAB**

**U.S. FEDERAL BUILDING  
517 Gold Avenue, SW  
Albuquerque, New Mexico**

**February 8, 1994**

**Project Number: RNM94133**

**BPLW Project No.: 91062.041**



**BPLW**

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**Architects & Engineers, Inc.**

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AFC #5, Suite 400  
2400 Louisiana Blvd., NE  
Albuquerque, New Mexico 87110  
(505) 881-BPLW (2759)

***Designing to Shape the Future***

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**SITE INVESTIGATION FOR  
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**GENERAL**

Site investigation was performed on January 31, 1994. The investigation included all interior column grid lines 2B through M4. The investigation included a summary of wall and floor finishes, electrical and mechanical conduit, ductwork and piping which would potentially be effected by the proposed structural retrofit.

## PROBABLE DEMOLITION

At each column within Area 1, a minimum of the following will be removed prior to proposed retrofit:

- Suspended ceiling tiles, grid and lay-in lights ..... 50 sq. ft./col.
- Electrical conduit between the ceiling space ..... 56 lf./col.
- Mechanical HVAC ductwork between ceiling space ..... 28 lf/col.
- Fire protection sprinkler pipe ..... 21 lf/col.
- Metal lath and plaster ceiling ..... 50 sq. ft./col.
- Any electrical or mechanical items above the plaster ceiling ..... Unknown
- Carpet squares and floor tiles ..... 50 sf. ft/col.
- Door including jamb frame and hardware ..... 1 door per column
- Plaster and wire on both interior/exterior ..... 252 sq. ft/col.
- Electrical receptacles, switches ..... 4/column
- Metal wall studs ..... 126 sq. ft/column

At each column within Area 2, a minimum of the following will be removed.

- Suspended ceiling tiles, grid and lay-in lights ..... 50 sq. ft./col.
- Electrical conduit above the ceiling ..... 56 lf./col.
- Mechanical HVAC ductwork between ceiling space ..... 28 lf/col.
- Fire protection sprinkler pipe ..... 21 lf/col.
- Carpet squares and floor tiles ..... 50 sf. ft/col.
- Door including jamb frame and hardware ..... 1 door per column
- Plaster and wire on both interior/exterior ..... 252 sq. ft/col.
- Electrical receptacles, switches ..... 4/column
- Metal wall studs ..... 126 sq. ft/column

Full operation of the 7th floor during the structural retrofit will not be possible. The Forest Service and Corps of Engineers are the primary tenants on the 7th floor. Both agencies have extensive computer networks which were noticed during the investigation. In addition, the construction noise and dust, even with proper dust protection, will be a hinderance to the agencies.

Access to the 7th floor is primarily from the lobby elevators, whose capacity is currently close to maximum.

Phasing the project in two sections would be the most expedient from a construction standpoint and allow for one agency at a time to relocate. Phasing considerations are dependant on the location of the agency within the 7th floor area and the location and zones for HVAC. The HVAC for the 7th floor is split into two distinct systems, one serving the west half from column line G to N, and the other serving the east half from column line A to G. It is fortunate that the two agencies occupy approximately the same areas.

## **PROBABLE DEMOLITION**

The most workable phasing scheme would be to relocate the Corps of Engineers in Area 2 (east of building) and install all the column shearheads in that area first. Area 2 does not have the demolition of the abandoned plaster ceiling. This will allow the contractor several "test columns" and will provide the basis of his retrofit operations. This area also has fewer unknowns, due to the plaster ceiling. The area does have some partitions which will be removed and therefore, give the contractor an opportunity to become familiar with most aspects of the work to be done within Area 1.

Once Area 2 has been completed and the Corp of Engineers moved back into the space, Area 1 may start demolition work.

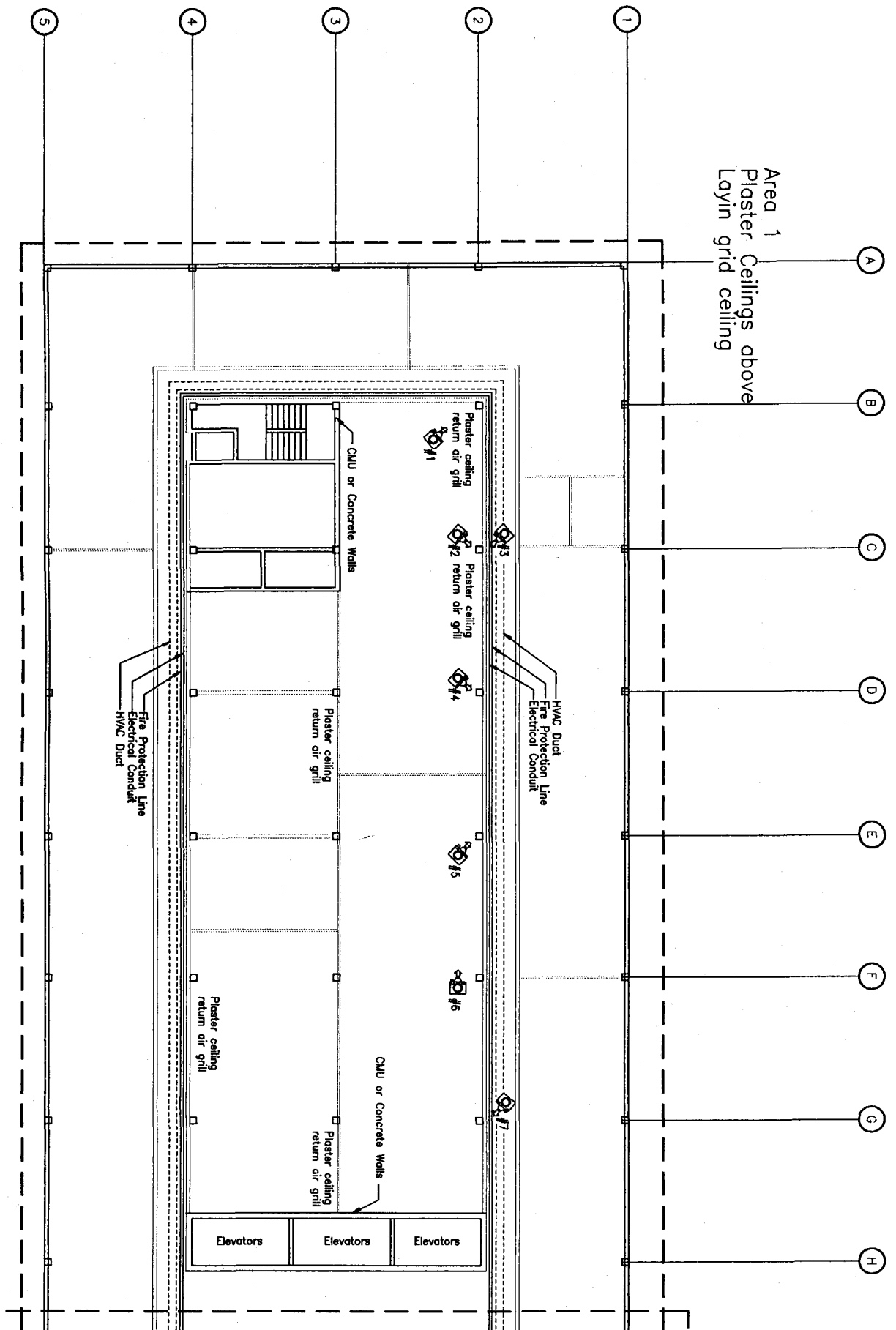
All demolition and construction work will need to be accomplished after hours from the standpoint of noise and its effects on agencies on the 6th and 8th floors, as well as on the 7th floor. The demolition work in Area 2 will not generate as much noise as in Area 1, so the 1st phase of construction may be able to be done during occupied hours of the building. The drilling and hammering operations associated with the retrofit will be required to be done after hours.

Allowing the contractor to work in as large an area as possible, will minimize the retrofit construction time and minimize the disturbance to the other tenants of the building.

# **APPENDIX A**

## **FLOOR PLANS AND PHOTO LOCATIONS**





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1/7/1998

**BPLW**

Architects & Engineers, Inc.

2400 Louisiana Boulevard NE  
APC #5 Suite 400  
Albuquerque, New Mexico 87110



65 East Main Street  
Suite 602  
Mesa, Arizona 85201

PROJECT NAME  
**517 Gold 7th Floor**

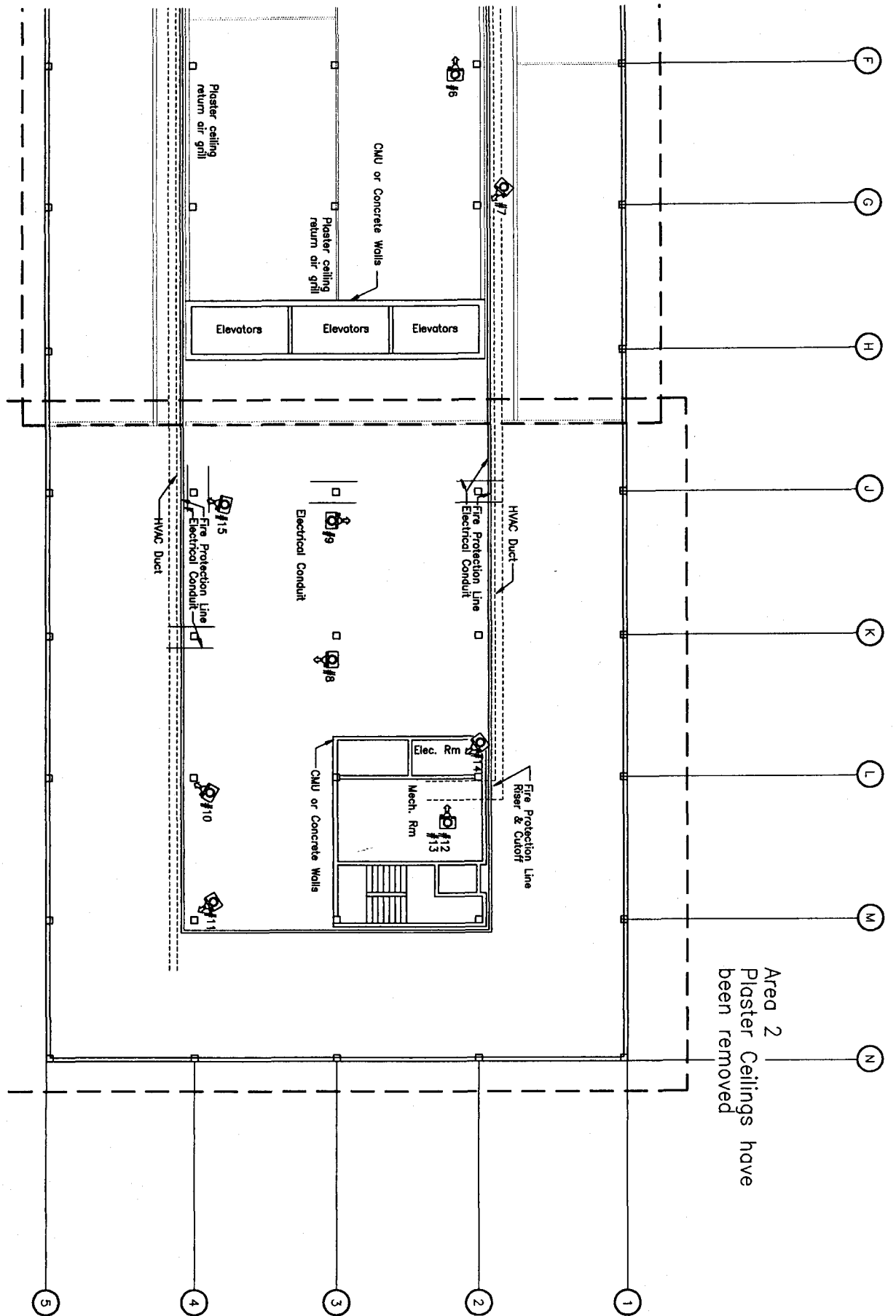
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DATE  
**2/7/94**

SUPPLEMENTARY  
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Architects & Engineers, Inc.

2400 Louisiana Boulevard NE  
AFC #5 Suite 400  
Albuquerque, New Mexico 87110

83 East Main Street  
Suite 602  
Mesa, Arizona 85201

PROJECT NAME

517 Gold 7th Floor

PROJECT NO.

91062 41

DATE

2 / 7 / 94

SUPPLEMENTARY  
DRAWING NO.

3